

Montana ACT Plus Writing Opportunity



Judy Snow

State Assessment Director



- Gaining Early Awareness and Readiness for Undergraduate Programs
- “. . . College is possible for all Montana students.”
- Provides support to increase student college and career preparation and readiness for success.

GEAR UP Grant and ACT Plus Writing

- \$28 Million Grant
 - Part of the seven year grant awarded to fund the ACT Plus Writing for Montana juniors in their high schools, on a school day, and without cost.
- Year 1: Spring 2012
 - Implementation pilot in Gear Up High Schools and a sample of other high schools.
- Years 2-7: All Montana high schools



From State Superintendent Juneau:

"More than 2,000 Montana students drop out each year. *We can do better.*"

<http://graduationmatters.mt.gov/>

Participation Opportunities

- Without accommodations
- With ACT-Approved Accommodations
- With State-Allowed Accommodations *



The ACT Plus Writing Opportunity for Montana

Presented by:

Joe Cruse & Sean Moore

ACT Mountain/Plains Region | ACT National Office

joe.cruse@act.org | sean.moore@act.org

www.act.org/stateservices

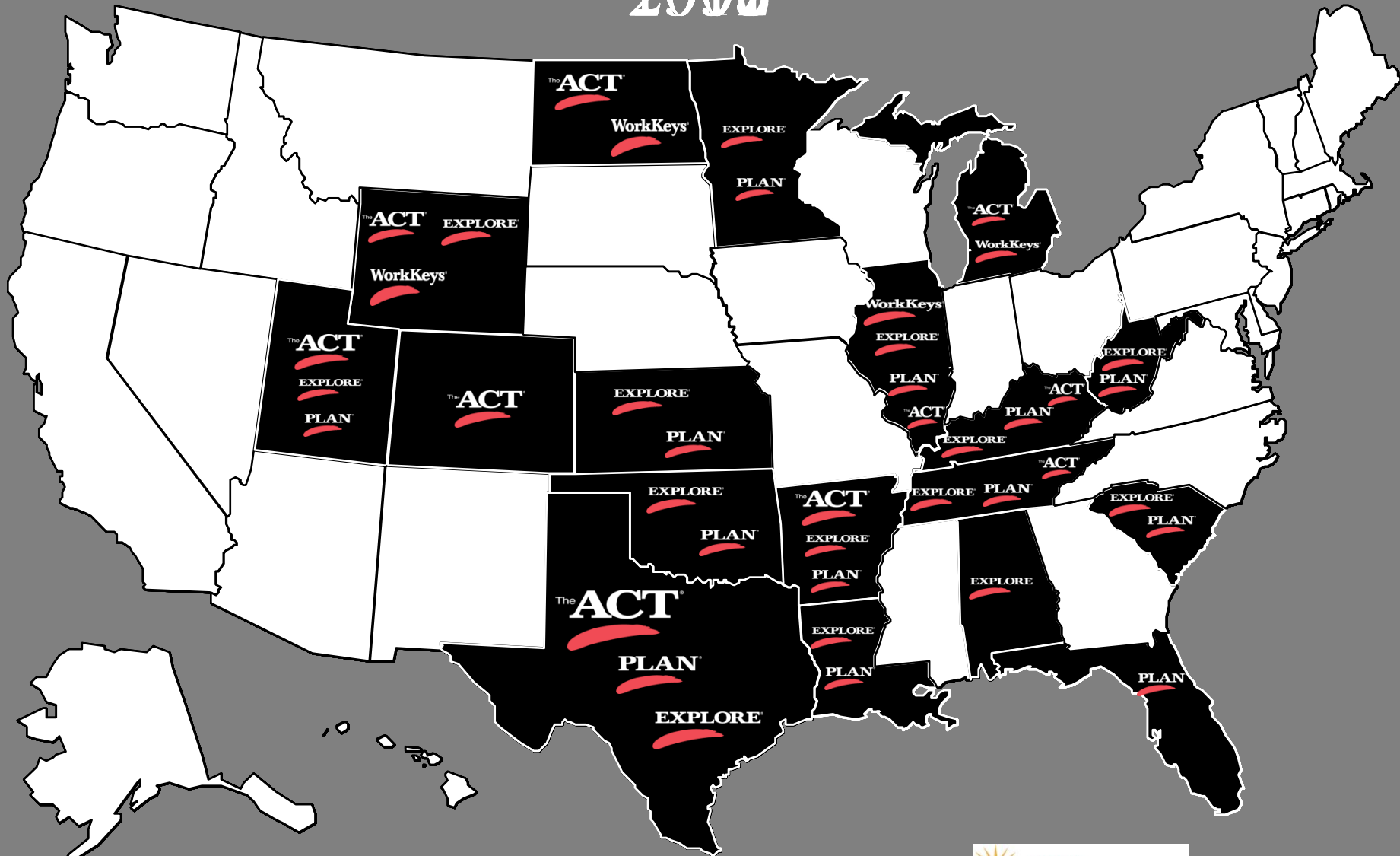
ACT[®]

Spring 2012

Every student should be prepared
to a standard of readiness for
postsecondary education and work

Statewide Partnerships in College and Career Readiness

2008



Spring 2012

College & Career Readiness System

The College & Career Readiness System is an integrated series of programs that connect teaching, learning, and assessment for students in grades K through 12.

College & Career Readiness System

MEASURING STUDENT PROGRESS TOWARD READINESS

EXPLORE

8th and 9th grade curriculum-based educational and career planning program

PLAN

10th grade curriculum-based educational and career planning program

The ACT

11th and 12 grade curriculum-based assessment for learning outcomes

ENGAGE

middle and high school assessment that measures all factors of academic success

IMPROVING COURSE

RIGOR QualityCore

Research-driven solutions for strengthening curriculum

SUPPORTING SOLUTIONS PLANNING SCHOOL IMPROVEMENT

Core Practice Audit

Framework for evaluating current practices

CoreWork Diagnostics

Online service to diagnose and improve content and practice areas

Benefits for States

- Reduction in remediation rates
- Greater retention and graduation rates, translating to a better trained workforce
- Increase in the number of economically disadvantaged students preparing for and enrolling in college
- High Return on Investment

College and Career Readiness System

- The Foundation
 - National Curriculum Survey®
 - College Readiness Standards™
 - College Readiness Benchmarks



ACT National Curriculum Survey®

- Determines what skills and knowledge postsecondary institutions expect
- Measures college-ready skills
- Surveys completed nationally
- Consultation with content area experts

ACT's College Readiness Standards™

- Direct link between what students have learned and what they are ready to learn next.
- Suggested learning experiences provide links between the Standards in one score range and those in the next (higher) score range.
- Ideas for progressing to the next score range demonstrate ways that information learned from standardized test results can be used to inform classroom instruction.

ACT's College Readiness Standards™

Example: Mathematics College Readiness Standards

www.act.org/standard

College Readiness Standards — Mathematics			
	Basic Operations & Applications	Probability, Statistics, & Data Analysis	Numbers: Concepts & Properties
15–16	Perform one-operation computation with whole numbers and decimals. Solve problems in one or two steps using whole numbers. Perform common conversions (e.g., inches to feet or hours to minutes).	Calculate the average of a list of positive whole numbers. Perform a single computation using information from a table or chart.	Recognize equivalent fractions and fractions in lowest terms. Enrich knowledge of basic expressions (e.g., identify an expression for a total as $a + b$). Solve equations in the form $x + a = b$, where a and b are whole numbers or decimals.
16–18	Solve routine one-step arithmetic problems (using whole numbers, fractions, and decimals) such as single-step percent. Solve some routine two-step arithmetic problems.	Calculate the average of a list of numbers. Calculate the average, given the number of data values and the sum of the data values. Read tables and graphs. Perform computations on data from tables and graphs. Use the relationship between the probability of an event and the probability of its complement.	Recognize one-digit factors of a number. Identify a digit's place value. Substitute whole numbers for unknown quantities to evaluate expressions. Solve one-step equations having integer or decimal answers. Combine like terms (e.g., $2x + 5x$).
20–23	Solve routine two-step or three-step arithmetic problems involving concepts such as rate and proportion, tax added, percentage off, and computing with a given average.	Calculate the missing data value, given the average and all data values but one. Translate from one representation of data to another (e.g., a bar graph to a circle graph). Determine the probability of a simple event. Enrich knowledge of simple counting techniques.*	Enrich knowledge of elementary number concepts including rounding, the ordering of decimals, pattern identification, absolute value, primes, and greatest common factor. Evaluate algebraic expressions by substituting integers for unknown quantities. Add and subtract simple algebraic expressions. Solve routine first-degree equations. Perform straightforward word-to-symbol translations. Multiply two binomials†.
24–25	Solve multistep arithmetic problems that involve planning or converting units of measure (e.g., feet per second to miles per hour).	Calculate the average, given the frequency counts of all the data values. Manipulate data from tables and graphs. Compute straightforward probabilities for common situations. Use Venn diagrams in counting*.	Find and use the least common multiple. Order fractions. Work with numerical factors. Work with scientific notation. Work with squares and square roots of numbers. Work problems involving positive integer exponents*. Work with cubes and cube roots of numbers*. Determine when an expression is undefined*. Enrich some knowledge of the complex numbers†.
26–32	Solve word problems containing several rates, proportions, or percentages.	Calculate or use a weighted average. Interpret and use information from figures, tables, and graphs. Apply counting techniques. Compute a probability when the event and/or sample space are not given or obvious.	Apply number properties involving prime factorization. Apply number properties involving exponents and numbers. Apply number properties involving positive/negative numbers. Apply rules of exponents. Multiply two complex numbers†.
33–38	Solve complex arithmetic problems involving percent of increase or decrease and problems requiring integration of several concepts from pre-algebra and/or pre-geometry (e.g., converting percentages to averages, using several ratios, and finding ratios in geometry settings).	Distinguish between mean, median, and mode for a list of numbers. Acquire and draw conclusions based on information from figures, tables, and graphs. Enrich knowledge of conditional and joint probability.	Draw conclusions based on number concepts, algebraic properties, and/or relationships between exponents and numbers. Enrich knowledge of logarithms and geometric sequences. Apply properties of complex numbers.

*Statements apply to PLAN & ACT only

†Statements apply to the ACT only

Mathematics

Standards are provided for each Mathematics Test score range (except for the 1–12 range) along a score scale that is common to:

[EXPLORE](#) (1–25)

[PLAN](#) (1–32)

[The ACT](#) (1–36)

View or print the set of [Mathematics Standards](#) on two 8-1/2 x 11 pages (PDF).

	Score Range 13–15	Score Range 16–19	Score Range 20–23	Score Range 24–27	Score Range 28–32*	Score Range 33–36†
Basic Operations & Applications	<p>Perform one-operation computation with whole numbers and decimals</p> <p>Solve problems in one or two steps using whole numbers</p> <p>Perform common conversions (e.g., inches to feet or hours to minutes)</p>	<p>Solve routine one-step arithmetic problems (using whole numbers, fractions, and decimals) such as single-step percent</p> <p>Solve some routine two-step arithmetic problems</p>	<p>Solve routine two-step or three-step arithmetic problems involving concepts such as rate and proportion, tax added, percentage off, and computing with a given average</p>	<p>Solve multistep arithmetic problems that involve planning or converting units of measure (e.g., feet per second to miles per hour)</p>	<p>Solve word problems containing several rates, proportions, or percentages</p>	<p>Solve complex arithmetic problems involving percent of increase or decrease and problems requiring integration of several concepts from pre-algebra and/or pre-geometry (e.g., comparing percentages or averages, using several ratios, and finding ratios in geometry settings)</p>
Probability, Statistics, & Data Analysis	<p>Calculate the average of a list of positive whole numbers</p> <p>Perform a single computation using information from a table or chart</p>	<p>Calculate the average of a list of numbers</p> <p>Calculate the average, given the number of data values and the sum of the data values</p> <p>Read tables and graphs</p> <p>Perform computations on</p>	<p>Calculate the missing data value, given the average and all data values but one</p> <p>Translate from one representation of data to another (e.g., a bar graph to a circle graph)</p> <p>Determine the probability of a simple event</p>	<p>Calculate the average, given the frequency counts of all the data values</p> <p>Manipulate data from tables and graphs</p> <p>Compute straightforward probabilities for common situations</p>	<p>Calculate or use a weighted average</p> <p>Interpret and use information from figures, tables, and graphs</p> <p>Apply counting techniques</p> <p>Compute a probability when the event and/or sample space</p>	<p>Distinguish between mean, median, and mode for a list of numbers</p> <p>Analyze and draw conclusions based on information from figures, tables, and graphs</p> <p>Exhibit knowledge of conditional and joint probabilities</p>

College Readiness Standards

[View or Print the Standards](#)

→ [English](#)

→ [Mathematics](#)

→ [Reading](#)

→ [Science](#)

→ [Writing](#)

[Information Services](#)

[The Standards in Action](#)

[ACT Education Home](#)

Ideas for Progress: Range 16–19

EXPLORE/PLAN/ACT Mathematics

Entries followed by a dagger (†) apply to the ACT Mathematics Test only.

To enhance their skills in each mathematics-related strand, students who score in the 16–19 score range may benefit from activities that encourage them to do the following:

Score Range 16–19	
Basic Operations & Applications	<ul style="list-style-type: none"> • solve routine arithmetic problems that involve rates, proportions, and percents • model and solve problems that contain verbal and symbolic representations of money • do multistep computations with rational numbers
Probability, Statistics, & Data Analysis	<ul style="list-style-type: none"> • interpret data and use appropriate measures of central tendency to find unknown values • find the probability of a simple event in a variety of settings • gather, organize, display, and analyze data in a variety of ways to use in problem solving • conduct simple probability experiments, use a variety of counting techniques (e.g., Venn diagrams, Fundamental Counting Principle, organized lists), and represent results from data using different formats
Numbers: Concepts & Properties	<ul style="list-style-type: none"> • apply elementary number concepts, including identifying patterns pictorially and numerically (e.g., triangular numbers, arithmetic and geometric sequences), ordering numbers, and factoring • recognize, identify, and apply field axioms (e.g., commutative)

ACT's College Readiness Benchmarks

Test	College Course	EXPLORE		PLAN	The ACT
		8th Grade	9th Grade		
English	English Composition	13	14	15	18
Math	Algebra	17	18	19	22
Reading	Social Sciences	15	16	17	21
Science	Biology	20	20	21	24

- Empirically Derived
- 50% chance of achieving a B or higher or about a 75% chance of achieving a C or higher in the corresponding credit-bearing college course

What is the ACT?

- Curriculum-based test
- Measures academic achievement
 - English
 - Math
 - Reading
 - Science
 - Writing (optional)

ACT Scores

The ACT

- English (1-36)
- Mathematics (1-36)
- Reading (1-36)
- Science (1-36)
- Composite (1-36)

The ACT Plus Writing

- Combined English and Writing Score (1-36)*
- Writing Test Subscore (2-12) *
- Narrative Interpretation of Writing test Subscore

*** Composite not affected**

ACT Multiple Choice Norms

- ACT score norms reflect the most recent scores of the seniors who graduated during the previous three years and who tested as 10th, 11th, or 12th graders.

Writing Test

- 1 writing prompt, 30 minutes
- Essay test that measures writing skills emphasized in high school English classes and entry-level college composition courses
 - Make and articulate judgments
 - Develop a position
 - Sustain focus
 - Organize and present ideas logically
 - Communicate clearly in writing

The ACT Score Report

TOLEDO, AUSTIN C.
7852 W 46TH ST
WHEAT RIDGE, CO 80033

MALE
08/22/93
392-11-2010

HIGH SCHOOL CODE: 067-890
DATE TESTED: 04/10
YEAR OF H.S. GRADUATION: 2011



THE EDUCATIONAL AND VOCATIONAL PLANS STUDENT INDICATED

EDUCATIONAL MAJOR

HOW CERTAIN

DEGREE OBJECTIVE

ACCOUNTING

FAIRLY CERTAIN

DOCTORATE/PROF DEGREE

INFORMATION ABOUT COLLEGES

(See ACT User Handbook)

Note: Some of this information (e.g., tuition and fees) may have changed since it was reported to ACT by the colleges.

COLLEGE ACT CODE	NAME OF COLLEGE	STATE ABBREVIATION	FULL-TIME STUDENT ENROLLMENT	SIZE OF COLLEGE COMMUNITY	GENERAL ADMISSIONS POLICY	APPROXIMATE YEARLY TUITION AND FEES (WITHOUT ROOM/BOARD)	PERCENT OF FRESHMAN CLASS RECEIVING FINANCIAL AID BASED ON NEED	FALL FINANCIAL AID APPLICATION DEADLINE	FOR FUTURE USE	COLLEGE CALENDAR	STUDENT'S MAJOR AVAILABLE	FOR FUTURE USE
9521	UNIVERSITY OF OMEGA	CO	28640	MTR	TRAD	5600	67	02/15		E-S	M	
9059	ALPHA UNIVERSITY	IA	20118	MC	SEL	9000	85	03/01		E-S	M	
8866	BETA COMMUNITY COLL	CO	6500	SC	OPEN	4000	58	04/01		T-S	C	
8905	MAGNA COLLEGE	OH	2800	SC	TRAD	8500	90	03/01		414	M	

ACT® HIGH SCHOOL REPORT

DASH (—) INDICATES INFORMATION NOT PROVIDED.

PLANS TO SEEK FINANCIAL AID:

YES

NEEDS HELP TO FIND WORK:

YES

HOURS/WEEK:

11-20

8905	MAGNA COLLEGE	OH	2800	SC	TRAD	8500	90	03/01		414	M		Y	Y	Y	N	2.7	6	2.7	82	41	72	45	56
------	---------------	----	------	----	------	------	----	-------	--	-----	---	--	---	---	---	---	-----	---	-----	----	----	----	----	----

ACT® HIGH SCHOOL REPORT

DASH (—) INDICATES INFORMATION NOT PROVIDED.
www.act.org

© 2010 by ACT, INC.
PO. BOX 168, IOWA CITY, IOWA 52243
ALL RIGHTS RESERVED
PRINTED IN U.S.A.

Reporting ACT Score Results

- Confidentiality-All student scores are confidential. ACT will not release scores by way of phone, fax, or email.
- It generally takes four to six weeks for students, schools, and colleges to receive (paper) copies of scores.
- ACT only reports results from the current test date.

Essay View for Colleges

- ACT Essay View is a free Web-based service that allows colleges to view and or download actual essays from the ACT Writing Test.
- ACT encourages universities and colleges to make this service known to English faculty and all admissions staff.

www.act.org/essayview

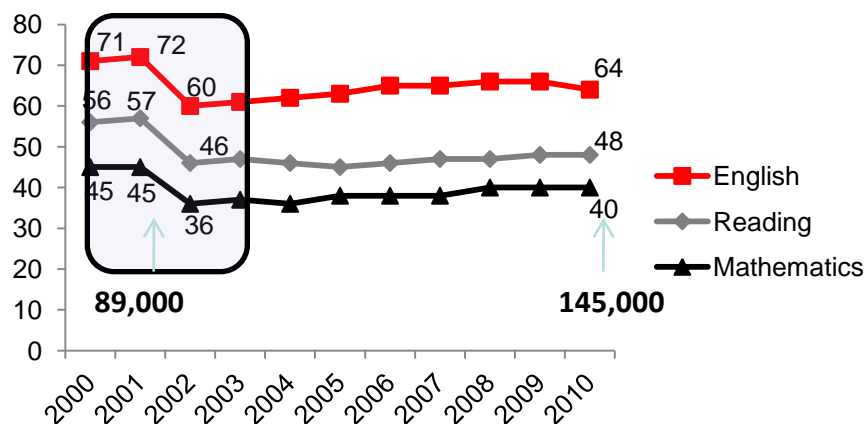
ACT Statewide Testing Results

Every student should be prepared
to a standard of readiness for
postsecondary education and work

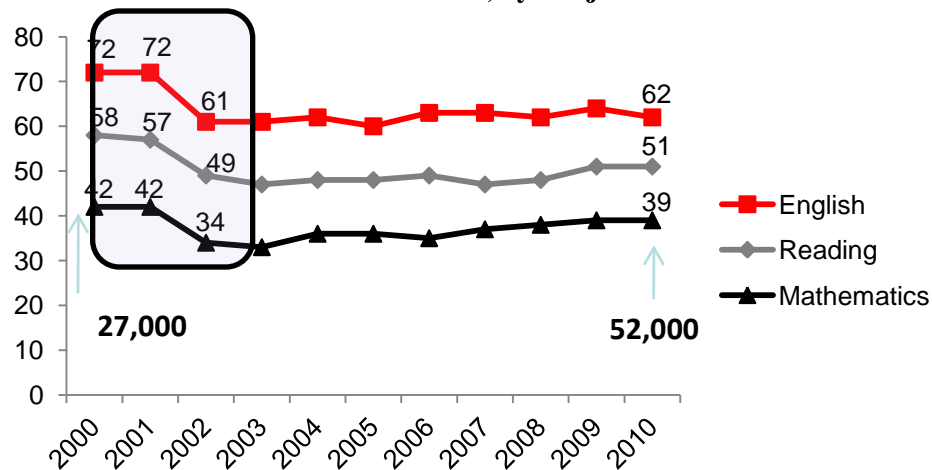
Shift in Expectations

Not a Drop in Student Achievement

Percent of Illinois ACT-tested Students Meeting College Readiness Benchmarks, by Subject and Year



Percent of Colorado ACT-tested Students Meeting College Readiness Benchmarks, by Subject and Year

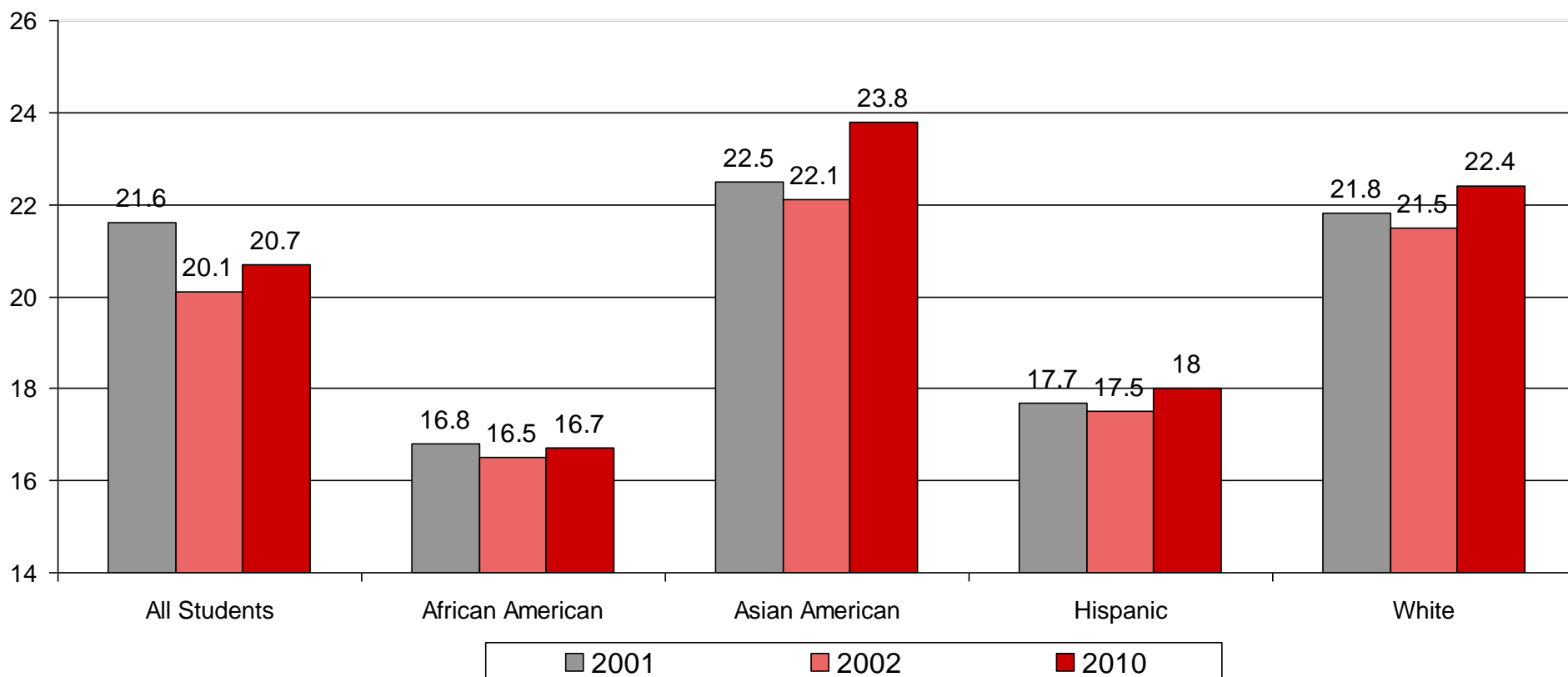


2002 – first year implementation of statewide ACT assessment of all students

Benefits of Statewide Testing

Improved Academic Achievement

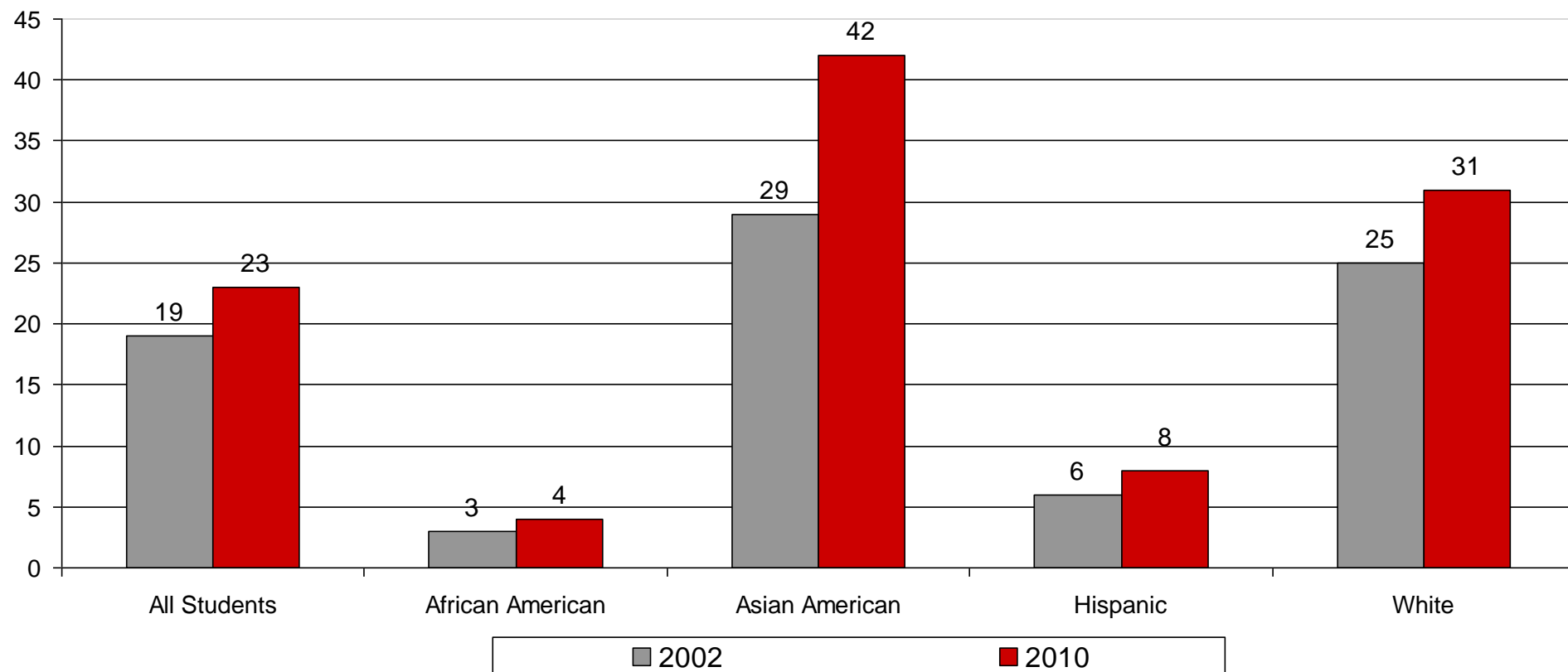
Average ACT Scores Illinois High School Graduates



Benefits of Statewide Testing

Improved Readiness for College

Percentage of Illinois ACT-Tested High School Graduates Meeting All Four College Readiness Benchmarks



Results of Statewide Testing

Increases in student:

- Participation
- Aspirations and Plans
- Achievement
- Course taking
- Enrollment in college, particularly minority and low income
- Retention in college
- All ultimately resulting in economic benefits to students as well as states

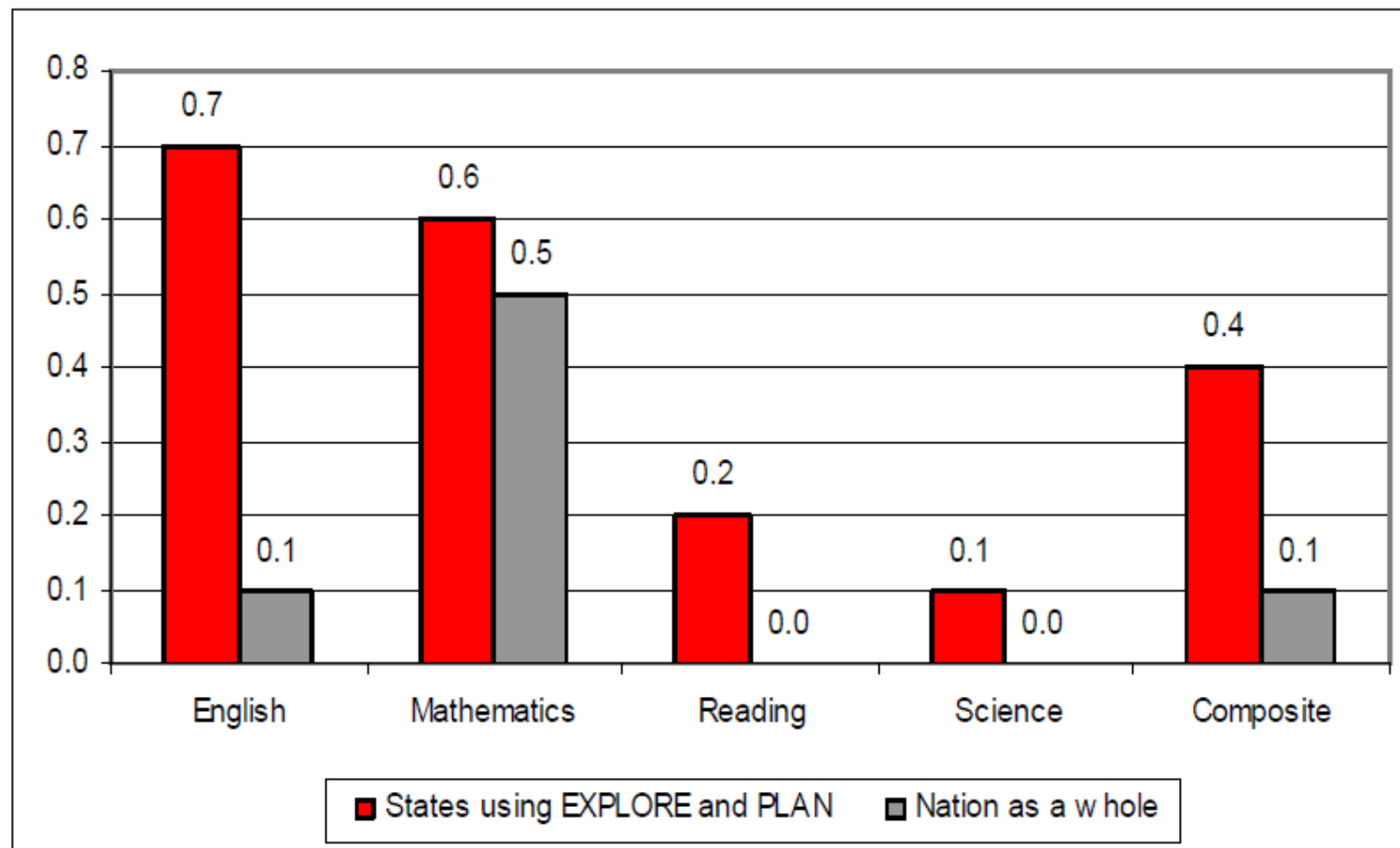
Results of Statewide Testing

- Measures state standards and is not too hard for all students
- In-school test administration is working
- High student motivation and participation
- NCAA, colleges, and scholarship agencies accept results of the ACT

EXPLORE and PLAN

Statewide Testing Results

Average Increase in ACT Scores for States Using EXPLORE and PLAN and for the Nation as a Whole



The ACT and College Access

State Testing Is a Great Equalizer

- More males
- More minority students
- More middle and lower-income students
- More first-generation students

Result...

- More opportunities to increase access and participation

Comparison of Colorado ACT-Tested Juniors Before and After State Testing

Category	2001 Juniors*				2002 Juniors				2010 Juniors			
	N	ACT Avg	2001%		N	ACT Avg	2002%		N	ACT Avg	2010%	
Total Tested	10987	22.5			45371	19.6			51181	20.4		
Female	5916	22.3	54%		22403	19.8	50%		25797	20.5	50%	
Male	4984	22.6	46%		22740	19.5	50%		25297	20.4	50%	
Total Responded	10900		100%		45143		100%		51094		100%	

*Before State Testing of All Juniors

Comparison of Colorado ACT-Tested Juniors Before and After State Testing

Category	2001 Juniors*			2002 Juniors			2010 Juniors		
	N	ACT Avg	2001%	N	ACT Avg	2002%	N	ACT Avg	2010%
By Ethnicity									
African-American/Black	235	18.9	2%	1389	16.5	4%	2146	17.2	4%
American Indian/Alaskan Native	65	21.2	1%	513	17.6	1%	573	18.7	1%
Caucasian-American/White	8335	22.9	78%	25367	20.8	66%	29349	22.0	60%
Mexican-American/Chicano/Latino	691	19.1	6%	2845	16.4	7%	7601	16.7	16%
Asian-American/Pacific Islander	330	22.2	3%	1286	19.5	3%	1630	21.5	3%
Puerto Rican/Cuban/Hispanic	111	19.9	1%	2588	16.8	7%	1884	17.8	4%
Other	145	20.0	1%	889	17.6	2%	1171	18.4	2%
Multiracial	295	21.6	3%	1459	19.5	4%	2651	20.3	5%
Prefer not to respond	495	23.2	5%	1977	19.9	5%	1992	20.5	4%
Total Responded	10702		100%	38313		100%	48997		100%

*Before State Testing of All Juniors

Comparison of Colorado ACT-Tested Juniors Before and After State Testing

Category	2001 Juniors*			2002 Juniors			2010 Juniors		
	N	ACT Avg	2001%	N	ACT Avg	2002%	N	ACT Avg	2010%
By Estimated Family Income									
Less than \$18,000	450	20.2	5%	2281	16.8	8%	4025	17.1	11%
About \$18,000 to \$24,000	481	20.0	5%	2537	17.5	8%	3668	18.2	10%
About \$24,000 to \$30,000	565	20.5	6%	2659	18.3	9%	3107	18.9	9%
About \$30,000 to \$36,000	573	21.6	6%	2677	19.1	9%	3164	19.6	9%
About \$36,000 to \$42,000	758	21.8	8%	3120	19.6	10%	3363	20.2	9%
About \$42,000 to \$50,000	893	22.1	10%	3156	20.0	10%	3225	21.0	9%
About \$50,000 to \$60,000	1086	22.4	12%	3187	20.8	10%	3287	21.7	9%
About \$60,000 to \$80,000	1600	22.9	17%	3908	21.2	13%	4007	22.1	11%
About \$80,000 to \$100,000	1160	23.8	13%	2916	21.6	10%	3398	23.0	9%
More than \$100,000	1612	24.1	18%	3969	22.2	13%	5264	24.0	14%
Total Responded	9178		100%	30410		100%	36508		100%
About \$0 to \$42K	2827		31%	13274		44%	17327		47%
About \$42K and Above	6351		69%	17136		56%	19181		53%
	9178		100%	30410		100%	36508		100%

*Before State Testing of All Juniors

The Impact of Testing in Colorado & Illinois on College Enrollment

- 13% of Colorado students who had not planned to attend college at the time of testing ended up enrolling in college the next year (18% in Illinois)*
- From 2002 to 2007, the percentage of CO and IL high school grads enrolled in college the following fall increased by 1 and 2 percentage points, respectively*

***2009 Case Study – Statewide Administration of the ACT: A Key Component in Improving Student Access to College and Work**

A Look at North Dakota

Comparison of North Dakota ACT-Tested Juniors Before and After State Testing

Category	2009 JRs Tested 2009 Comp Avg 2009 %			2010 JRs Tested 2010 Comp Avg 2010 %		
Total Tested	3912	22.0		6814	20.4	
Female	2124	21.9	54%	3414	20.5	50%
Male	1786	22.2	46%	3388	20.3	50%
Total Responded	3910		100%	6802		100%

Comparison of North Dakota ACT-Tested Juniors Before and After State Testing

Category	2009 JRs Tested	2009 Comp Avg	2009 %	2010 JRs Tested	2010 Comp Avg	2010 %
By Ethnicity						
African American	18	18.2	0%	60	16.9	1%
American Indian/Alaskan	102	17.1	3%	361	16.4	5%
Caucasian	3616	22.2	93%	5649	20.9	85%
Mexican American	18	19.7	0%	76	16.7	1%
Asian American	36	23.0	1%	71	20.8	1%
Puerto Rican/Cuban/Hisp	13	22.2	0%	19	19.8	0%
Other	36	20.3	1%	87	17.8	1%
Multiracial	27	22.1	1%	130	20.1	2%
Prefer NR	39	23.0	1%	156	19.8	2%
Total Responded	3905		100%	6609		100%

Comparison of North Dakota ACT-Tested Juniors Before and After State Testing

Category	2009 JRs Tested	2009 Comp Avg	2009 %	2010 JRs Tested	2010 Comp Avg	2010 %
<u>By Estimated Family Income</u>						
About \$0 to \$18,000	166	19.5	5%	390	17.6	8%
About \$18,000 to \$24,000	153	20.5	5%	421	18.5	8%
About \$24,000 to \$30,000	146	20.7	4%	388	19.5	8%
About \$30,000 to \$36,000	173	21.3	5%	464	19.8	9%
About \$36,000 to \$42,000	187	21.6	6%	529	20.5	10%
About \$42,000 to \$50,000	262	21.7	8%	588	20.7	12%
About \$50,000 to \$60,000	427	22.2	13%	584	21.2	11%
About \$60,000 to \$80,000	646	22.3	20%	708	21.3	14%
About \$80,000 to \$100,000	522	22.5	16%	457	22.1	9%
More than \$100,000	600	23.1	18%	583	22.3	11%
Total Responded	3282		100%	5112		100%
About \$0 to \$42K	825		25%	2192		43%
About \$42K and Above	2457		75%	2920		57%
	3282		100%	5112		100%

The Current Picture in Montana

Category	2011 JRs Tested	2011 Comp Avg	2011 %
All Students	3312	22.6	
Female	1873	22.4	57%
Male	1439	22.9	43%
	3312		100%
Black/African American	12	17.9	0%
American Indian/Alaska Native	119	17.8	4%
White	2811	22.9	85%
Hispanic/Latino	94	21.2	3%
Asian	49	22.0	1%
Native Hawaiian/Other Pacific Islander	2	20.0	0%
Two or more races	122	21.8	4%
Prefer not to respond	99	23.9	3%
Total Responded	3308		100%
About \$ 0 to \$ 24,000	290	20.6	11%
About \$ 24,000 to \$ 36,000	317	21.5	12%
About \$ 36,000 to \$ 50,000	369	21.9	14%
About \$ 50,000 to \$ 60,000	298	22.8	12%
About \$ 60,000 to \$ 80,000	447	22.9	17%
About \$ 80,000 to \$100,000	333	23.1	13%
About \$100,000 to \$120,000	240	23.6	9%
About \$120,000 to \$150,000	136	23.3	5%
More than \$150,000	153	24.5	6%
Total Responded	2583		100%
About \$0 to \$50K	976		38%
About \$50K and Above	1607		62%
	2583		100%

ACT Resources



State Services Website
www.act.org/stateservices



Policy Research
www.act.org/research



Regional Offices/Contacts

Q&A

Contact Information

Joe Cruse

Director, Program Solutions
ACT Mountain/Plains Region
3131 S. Vaughn Way, Suite 218
Aurora, CO 80014
303.337.3273 phone
joe.cruse@act.org

Sean Moore

Principal Consultant, State Partnerships
ACT, Inc., Educational Services
500 ACT Drive
Iowa City, IA 52241
319.337.1768 phone
sean.moore@act.org

Judy Snow

State Assessment Director
Montana Office of Public Instruction
406-444-3656
jsnow@mt.gov